Knowledge, Skill, Ability, and Personal Characteristic Statements

Associate Telecommunications Engineer

KSAPC #	KSAPC Statement
1.	Knowledge of the theory and principles of telecommunications and electronics for the installation, maintenance, modification, and repair of equipment and systems.
2.	Ability to apply the theory and principles of telecommunications and electronics for the installation, maintenance, modification, and repair of equipment and systems.
3.	Knowledge of the design, uses, and functions of telecommunication systems and equipment (e.g., wireline, radio, fiber, satellite, data communications, telephone systems) in order to perform essential work functions.
4.	Knowledge of principles, practices, methods, terminology and trends in telecommunication systems engineering.
5.	Knowledge of frequency spectrum allocations to effectively design telecommunication systems.
6.	Knowledge of the field of electromagnetic wave propagation to effectively design and test telecommunications systems.
7.	Ability to detect, eliminate, and prevent problems with telecommunication systems down to the component level to ensure operability of equipment.
8.	Ability to detect, eliminate, and prevent sources of radio frequency interference using test equipment on radio, microwave, and communications systems to assure proper operation.
9.	Knowledge of signal strength measurements and tolerances to effectively design, test, and maintain telecommunication systems.
10.	Ability to interpret and apply provisions of State and federal rules and regulations affecting the design, implementation, and operation of telecommunication systems.
11.	Knowledge of techniques (e.g., soldering, connectorizing, interpreting schematic diagrams) used in the installation and modification of telecommunications equipment and systems down to the component level.
12.	Ability to modify and assemble telecommunications equipment to properly interface with communications systems in accordance with manufacturer specifications and engineering instructions.
13.	Knowledge of operational configurations of hardware and software used in telecommunication systems.
14.	Ability to configure hardware and software used in telecommunication systems.

KSAPC #	KSAPC Statement
15.	Knowledge of methods and devices (e.g., cabling, connectors) for interconnecting telecommunication equipment and systems.
16.	Knowledge of industry standards and best practices related to the design, implementation, and maintenance of telecommunication systems.
17.	Ability to apply industry standards and best practices to the design, implementation, and maintenance of telecommunication systems
18.	Ability to use precision instruments for measuring system performance (e.g., frequencies, power, modulation, losses and other parameters) to maintain proper system performance.
19.	Ability to use computers and network equipment to configure, monitor, test and/or operate telecommunication systems.
20.	Knowledge of various types of information processing and networking hardware as they are utilized in telecommunication systems.
21.	Ability to identify and analyze functional and operational requirements and to develop solutions that satisfy end user telecommunication needs.
22.	Ability to write clearly and concisely using proper spelling, grammar, syntax and sentence structure.
23.	Ability to verbally communicate information and ideas so others will understand.
24.	Ability to develop and maintain constructive and cooperative working relationships.
25.	Ability to write technical reports to communicate complex information to various audiences.
26.	Ability to actively listen to others to facilitate an open exchange of ideas and provide for effective communication.
27.	Ability to effectively communicate in front of groups to facilitate an open exchange of ideas.
28.	Ability to develop specific goals and plans to accomplish work.
29.	Ability to adapt to changes in priorities, work assignments, and other factors.
30.	Ability to prioritize work assignments and/or problem solutions to ensure completion within established timeframes.
31.	Ability to work on multiple projects and/or assignments concurrently to enhance productivity and achieve intended results.
32.	Ability to work independently on projects or assignments without close supervision or detailed instructions to achieve intended results.
33.	Ability to perform job tasks during stressful working conditions (e.g., deadlines, multiple assignments).
34.	Knowledge of mathematical principles used in design and implementation of telecommunication systems.
35.	Knowledge of statistical analysis techniques in order to interpret data and make recommendations.

KSAPC #	KSAPC Statement
36.	Ability to apply mathematical principles and statistical analysis to design and evaluate telecommunication systems.